



Caltrans Division of Research,
Innovation and System Information

Research Results

Research
Support

DECEMBER 2015

Project Title:

No Boundaries Roadway Maintenance Practices, TPF-5(239)

Task Number: 2186

Start Date: January 10, 2011

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Product Category: New or improved tool or equipment

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Cross-State Collaboration on Roadway Maintenance Practices

The No Boundaries project promotes resource sharing among states to research and deploy maintenance innovations

WHAT WAS THE NEED?

To improve facilities and maintain an aging infrastructure with fewer resources demands innovative technologies and practices. Fostering these advances and integrating the products into the day-to-day practices of state departments of transportation (DOT) requires research, time, and money. The time and dollars can be more effectively put to use by not investing in research that has already been performed by another state DOT. By pooling resources, state DOTs can more cost-efficiently identify and evaluate maintenance innovations and improve business practices.

WHAT WAS OUR GOAL?

The goal was for the participating state DOTs to work collectively to identify and implement improved maintenance practices and products, saving time and money by eliminating separate investments in the same research.

Truck-mounted lifting device automates traffic barrel pickup operations and removes crews from the path on oncoming traffic. It has cut sprains and strains by half, decreasing lost work time and potential claims.



Caltrans provides a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

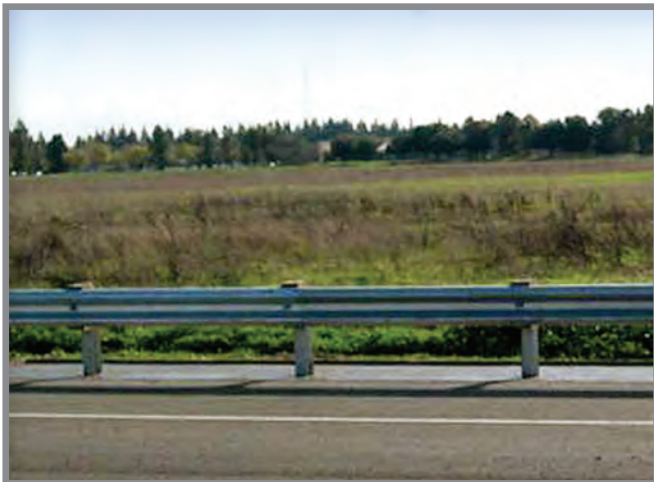
WHAT DID WE DO?

Led by the Missouri DOT, Caltrans, along with the Georgia, Iowa, Mississippi, Ohio, Pennsylvania, and Washington DOTs, participated in the No Boundaries project. The member state DOTs identified and shared their implemented maintenance innovations, including the following.

- Advanced control system herbicide sprayer
- All-terrain rotary tree trimmer
- Concrete deck repair trailer
- Data-driven traffic paint reflectivity program
- Debris removal tool
- Epoxy injection of bridge decks
- Maintenance Leadership Academy training classes
- Mobile work zone barrier
- Pavement contrast striping
- Recycling used tires program
- Tandem-axle dump truck
- Truck-mounted attenuator panic lights
- Truck-mounted lifting device
- Weed control barrier

WHAT WAS THE OUTCOME?

The consortium has provided the technical exchange needed to advance the application and benefits of maintenance innovations. A public website that keeps members and other agencies up to date and centralizes information regarding the various products was developed.



CRMCrete weed control barrier, made from readily available recycled products, blocks weed growth under guardrails, reducing recurring maintenance activities, such as herbicide application, pruning, and mowing.

WHAT IS THE BENEFIT?

No Boundaries helped promote promising, ready-to-deploy maintenance innovations implemented by the member states. The various agencies saved time and money by not duplicating the same research while also benefitting from other states' experiences. The project provided a forum for state DOTs to share information, support technology transfer, and develop deployment plans. The collaboration provided essential verification that new products and practices can be successfully integrated into current maintenance programs and make a positive difference.

LEARN MORE

For details about the implemented practices, visit <http://noboundaries-roadmaintenance.org>

To view the final report:
www.pooledfund.org/Details/Study/468



Jarraff all-terrain rotary tree trimmer lets the operator remain in an enclosed cab safely away from cutting blades and falling debris.